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ABSTRACT

This study examined: (1) the accuracy with which standards of the state-subsidized Israeli family day care (FDC) program were implemented; and (2) the relationships between specific program service characteristics, program quality, and children's daily experiences in care. Israeli family day care standards concern program participants, caregivers and program coordinators, group composition, physical conditions, and educational programming. In this study of 12 FDC services, participants included caregivers at 41 FDC homes, 82 infants and toddlers, and their mothers. Mothers and caregivers were interviewed; caregiver and child interactions were observed; and caregiving environments were rated. Measures included demographic data on program participants, caregivers, and program coordinators; group composition data; and ratings and observations of environmental quality, quality of interaction, behavior of children, individual competence, concept and skill acquisition behavior, gross motor activity, aimless behavior, negative socioemotional behavior, and emotional distress. Findings indicated that important aspects of children's daily experiences in FDC are strongly influenced by such factors as the caregiver's supervision and education and the group's composition. Implications of the findings for policy decision making are pointed out. (RH)

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SOCIAL POLICY AND ITS EFFECTS ON THE DAILY EXPERIENCES OF INFANTS
AND TODDLERS IN FAMILY DAY CARE IN ISRAEL

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Running head: Social Policy

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ABSTRACT

Eighty-two infants and toddlers, their mothers, and their caregivers participated in this study. Mothers and caregivers were interviewed, caregiver and child interaction was observed, and the caregiving environment was rated in 41 Family Day Care (FDC) homes. The data were utilized to assess the effects of social policy decisions for standards and criteria underlying the FDC program, on the daily experiences of infants and toddlers in these services. The findings show that, while on average the standards were maintained, individual homes varied sufficiently to allow an examination of the effects of policy. Standards requiring individual supervision of caregivers were the best predictors of quality of care, which then determined the children's behaviour. Caregiver selection criteria had relatively little effect on children's daily experiences. Criteria that determined group composition had an effect on the quality of care as well as on the behaviour of children. The study highlights the effects of a group care environment on experiences which contribute to the social and cognitive development of young children, and points to the need for further study on the contribution of specific environmental conditions to certain aspects of development.

The study suggests that, with adequate training and individual supervision, the quality of care in Family Day Care could be significantly improved.

SOCIAL POLICY AND ITS EFFECTS ON THE DAILY EXPERIENCES OF INFANTS
AND TODDLERS IN FAMILY DAY CARE IN ISRAEL

Social and economic changes of the last decade have resulted in a growing need for day care for young children. It is predicted, for example, that within the next decade nine out of ten American children under the age of six will require some form of day care (Clarke-Stewart & Fein, 1983). Social policy related to day care is at present far from meeting the needs of young children and their families in most Western countries. This is especially true when both availability and quality of programs for infants and toddlers is considered. This inadequacy of social policy has led a growing number of concerned developmental psychologists to attempt to influence social policy related to child care in North America and in other Western countries (Zigler, 1982, 1987; Phillips, 1987; Moss, 1987; Rosenthal, Shimonl & Simon, 1986; Goelman, Rosenthal & Pence, in press).

The assessment of the effects of a social policy on the development of children can take place on several levels. The first involves the assessment of the adequacy of the translation of policy goals into operational guidelines (standards and criteria) for the program, and the investigation of potential operational conflicts which can arise. The second level of assessment examines the accuracy with which the program's guidelines are implemented by the individual services. The final level of assessment investigates whether adherence to specific program guidelines (standards and criteria) effects the specific daily experiences and

development of children in the program. Theory and research on the development of children reared in group care enable us to formulate some general hypotheses about the standards required for quality care. Nevertheless, these hypotheses are insufficiently specific for policy makers, especially vis-a-vis priorities in setting standards. The present study, by examining the contribution of specific standards set by policy on quality of care, will help to rectify this situation by expanding the understanding of the effects of policy related environmental variations on the daily experiences of young children in group day care.

Most research on child care has been conducted in center-based care (Howes, 1986), although the largest number of children in child care is in Family Day Care (FDC) (i.e. the child is cared for in the provider's home). The majority of American studies that do compare the quality of care in different child care settings suggest that it is usually poorer in FDC settings (Clarke-Stewart & Fein, 1983). The fact that FDC settings vary greatly in quality of care suggests that a research strategy which compares FDC with center-based day care may not be the most informative method for investigating the unique contribution of variations in standards to quality of care in each of these distinct settings (Rosenthal, in submission).

The purpose of this study is to describe systematically and compare the daily experiences of children in FDC that vary along predefined dimensions, resulting from variations in the application of social policy determined standards. More specifically, it will examine in this particular child care setting the relative impact of particular standards on the

process and circumstances by which development takes place, namely the child's interactions with the physical environment, peers and caregiver (Cochran, 1977; Connolly & Smith, 1978). The study focuses on the daily experiences that have been shown by previous research to influence the child's future development as well as present well being (e.g. Carew, 1980; Golden et al., 1978; McCartney et al., 1985; Roupp & Travers, 1982). The study hypothesizes that two major aspects of quality of care, the quality of interaction between caregiver and child and the quality of the educational environment, mediate between the standards set by the social policy and the daily experiences of children in a given setting.

The Israeli FDC program - social policy and standards of care

The social policy goals articulated by the Ministry of Labour and Social Affairs, which subsidizes families using day care, is to provide adequate care for the children of working mothers and an enriching environment for children of distressed families (Rosenthal & Shimoni, 1985). Although as yet the extent to which these goals are being met has not been studied, there has been a growing dissatisfaction among both professionals and public officials with the quality of care infants and toddlers are getting in the existing day care system (Rosenthal, 1985; Rosenthal and Shimoni, 1985; Rosenthal, 1988).

A deliberate attempt to modify the ways in which social policy goals are implemented took place in 1977. A public committee, with inter-ministerial representation, sponsored the establishment of a Family Day Care

program. It was agreed that FDC was to be subsidized by the government on the same basis as other day care programs, and would serve the same target population. Three major objectives were stated by the committee: First, to provide and maintain quality care for the children of working mothers. Second, to provide, in addition to quality care, a support system for distressed families with very young children. Third, to meet the unique needs of infants and toddlers by providing stable and continuous care from one caregiver in the intimacy of a home environment. Since this initiative was well documented from the start, it has provided a valuable research opportunity to evaluate the entire social policy process, beginning with the workings of policy decision making, through implementation, to the analysis of the effect of these policy decisions on children's daily experiences.

The Israeli FDC program is funded by family payments and subsidies provided by the Ministry of Labour and Social Affairs. Fees are determined by the government. Each service operates daily from 8:00-16:00, six days a week, 11 months a year. The following is a description of the standards and guidelines set by the program for individual services. It is presumed by the policy makers that adherence to these standards will guarantee the attainment of the policy goals.

Program participants: The program is expected to serve children, age 3-36 months, of working mothers or from "distressed" families (as defined by the local welfare department).

Program operators (caregivers and coordinators): The standards require that caregivers have at least 10 years of formal education, six weeks of

pre-service training, and previous experience in child care. The caregiver must agree to receive weekly individual supervision and participate in bi-weekly in-service training. The standards further required that each service be coordinated by a professional trained in early childhood development, who is responsible for the training and supervision of the caregivers and for liaison among the community services available to families utilizing the particular FDC service.

Group composition: The maximal number of children allowed per home is five. The ages of the children are to be mixed, so that the caregiver can better attend to the needs of the children. The groups are expected to represent a wide range of SES backgrounds, in order to avoid a high concentration of children of "socially distressed" families.

Physical conditions: A detailed list specifies conditions of physical care, health and safety criteria, furniture, indoor space and access to outdoor space, play materials and equipment. Some financial support is given to new caregivers to help them equip their home according to the required standards.

Educational program: No specific educational program was stipulated by the standards, though the social goal of "enrichment" for children from poor families requires that "educational activities" should be incorporated into the daily routine of the service. These are supposed to be introduced through the in-service training and individual supervision of the caregiver.

Research strategy

The strategy of this study was to examine on a macro-level the accuracy with which the standards and criteria of the Israeli FDC program were implemented in 12 FDC services operating in Israel in 1983. It focuses on the standards of caregivers' qualifications, in-service training and supervision, group composition and of the physical environment and educational program. It further appraises, on a micro-level, the relationship between specific service characteristics (affected by the standards and criteria), the quality of care provided, and children's daily experiences. The specific research questions on the micro-level of analysis address (a) the impact of the standards on the quality of the educational environment and the quality of the caregiver's interaction with the children, and (b) with the impact of the quality of the educational program and the quality of caregiver's interaction, as well as that of group characteristics, on the children's behavior while controlling for the potential effects of their individual background.

METHOD

Sample

Family Day Care homes: Forty-one FDC homes (and caregivers) were sampled out of the 97 homes which operated in 1983 throughout Israel. Due to the growing concern of the effects of out-of-home care on infants, only homes that had at least one infant were included in the sample. All homes

in Jerusalem that had infants were included in the sample (N=30). With the exception of one, two homes were sampled randomly in each of the other six locations where FDC was operating. These locations were all in rural communities in central Israel. All the caregivers agreed to participate in the study.

Children: Eighty-two children were sampled, two in each FDC home. One child was always the youngest in the home and the other was selected randomly from among the other children. The sample consisted of 49 boys and 33 girls. Ninety-four percent came from intact families. Out of the 82 mothers of the children surveyed, only 71 were interviewed. Two refused to be interviewed, two participated as caregivers and the rest moved and could not be traced.

Procedure

Data on social policy were obtained from documents and interviews with members of the National Committee on FDC, and from interviews with the heads of the sponsoring organization.

Two sets of data were obtained for each FDC home: one based on an observation day and the other on structured interviews conducted with the caregiver and the mother. The observations were conducted by four trained observers and the interviews by three trained interviewers.

Observers used the following data collection procedures:

(1) A Time-sampling observation of the caregiver's behavior. The time-sampling procedure utilized predefined recording sheets and followed a

prescribed routine and recording rules. During an observation day six time sample periods of five minutes each were taken of the behavior of caregiver and each target child, in a fixed sequence of Target Child A - Target Child B - Caregiver. Behavior was observed for 10 seconds and then recorded for 10 seconds, yielding altogether 90 time sampling units of behavior for each target subject. Each observation unit also provided information on the context of behaviour. At the end of each five minute period the observer filled in a short questionnaire describing that period and then shifted to the next target subject. (2) A Daily Log which recorded continuously the activities of the group, and the duration of each group activity, throughout the day.

(3) An Environment Rating Questionnaire which was adapted from the Day Care Environment Inventory (Prescott, Kritchevsky and Jones, 1972) and the Family Day Care Rating Scale (Harms and Clifford, 1984) to the Israeli setting. It was completed by the observer at the end of the observation day.

(4) A Group Composition record derived from the caregiver's files.

Measures

Demographic data on program participants: child's age, sex and age-of-entry, parents' education, mother's age and hours of employment, were derived from the mother's interview.

Demographic data on program operators: education level, previous work

experience, duration and frequency of training and supervision, were derived from the caregiver's and coordinator's interviews.

Group Composition: group size, mean age and age mix, as well as mean level of parents' education and percent of children from "problem" families, were derived from the caregiver's files.

Quality of the Environment is a composite standardized score of the following: physical care conditions, amount and variety of play materials, organization of play materials, crowdedness, daily schedule, proportion of educational and physical care group activities, relaxed and pleasant emotional tone and atmosphere. These measures are derived from the Environment Rating questionnaire and the Daily Log. Cronbach standardized item Alpha for the composite measure is .70.

Quality of Interaction is a composite standardized score of the following caregiver's measures: proportion of observation time (90 time sampling units) the caregiver spent teaching, encouraging and reinforcing the children's activity and using language relating to the focus of their attention; or alternatively, the time the caregiver spent alone or engaged in various "preparations" (cooking, cleaning). In addition the measure included ratings of the caregiver's location (near or far from the children) at the end of each five minute period of observation, and a rating of the diversity of activities she generated for the children during the day (derived from the Environment Rating Questionnaire). Cronbach standardized item Alpha for the composite measure is .79. These measures were selected as important influences on toddlers' competence and development by previous

researchers (Ainsworth & Bell, 1973; Clarke-Stewart, 1973; Connolly & Smith, 1978; Elardo, Bradley & Caldwell, 1977; Phillips, McCartney & Scarr, 1987; Rubenstein & Howes, 1979).

The quality of the environment and interaction measures fulfilled a dual role in this study. They served as both outcome measures in assessing the effects of specific standards and criteria set by social policy, as well as functioning as predictors for the behaviour of children in these settings. Thus they both constitute significant determinants of children's "daily experiences".

The behaviour of children constitutes another determinant of children's "daily experiences" and provides another set of outcome measures for the effects of policy standards. Behaviours were selected for observation on the basis of their potential contribution to the child's development and as indications of well being, as suggested by theory and previous research (e.g. Carew, 1980; Roupp & Travers, 1982). The behaviors recorded were:

Competence, as a composite standardized score derived from the 90 time-sample units of the child's observation, measured the proportion of time which the child spent using language, interactively playing with another child, and demonstrating positive social behaviors (smile, share, offer, cooperate, organize or show empathy). It also included an average of the ratings of the level of play with toys (Howes, 1980). Cronbach standardized item Alpha for the composite measure is .72

Concept and skill acquisition behaviour, such as hand-eye coordination activities, behaviors which facilitate the acquisition of language, concepts of space and time relationships, group membership, and physical or social knowledge.

Gross motor activity which clearly presents a challenge to the child, such as crawling or walking for infants, and climbing, running, riding a bike, pushing-pulling and throwing a ball for toddlers.

Aimless behaviour, such as sitting alone doing nothing and staring into space, aimless wandering, and looking around without focusing attention on any particular object.

Negative socio-emotional behaviour, such as struggling with or attacking another child, and not complying with caregiver's directions (recorded separately).

Emotional distress, such as crying or showing other signs of distress.

All behavior measures are proportions of observation time (90 units) spent in these activities.

The inter-observer reliability for all observation measures ranged from .69 to .90.

Data Analysis

The first set of research questions assessed the implementation of the standards and criteria promulgated by the social policy of the sponsored FDC program. This was done by generating descriptive statistics (means and

standard deviations) of the program participants, program operators and the caregiving environment.

The second set of research questions investigated the impact of specific program standards on the quality of interaction provided by the caregiver and on the quality of the environment. The predictor variables were divided into those that were related to the selection criteria of caregivers (age, experience, education level and pre-service training) compared with the standards of in-service training and individual supervision, and those that determined the group composition (age of children and their SES background). Criterion variables were Quality of Interaction and Quality of Environment.

The third set of research questions investigated the indirect effects of selection, training and supervision standards by examining the effects of policy related standards of Quality of Environment and Group Composition on children's behavior. The predictor variables in the first analysis were Parent Education, Child's Age, Quality of Environment and Quality of Interaction, while in the second the various group characteristics were used.

These last two sets of research questions were dealt with by means of a series of hierarchical regression analyses. The order of entry of the predictor variables into the equation were determined by our hypotheses. Thus, the first predictors were always those we wished to control for, and the latter were those whose contribution we wanted to examine, while controlling for the effect of the former.

This contribution is presented in terms of R-square change of each step in the regression; the R-square of the final equation sums up the total contribution of all predictors in the specific equation. The relative contribution of each predictor to the criterion, while controlling for all other variables in the equation is presented through the standardized partial coefficient (Beta) of the final regression equation. These coefficients describe in addition the direction of effect.

In the final stage of data analysis, a few analyses of variance were conducted to examine some specific, or curvilinear relationships between policy related standards and caregiver's or child's behaviors.

RESULTS

Adequacy of Match with Policy Standards

As Table 1 shows, the FDC services that operated in 1983 largely followed the standards set by the government's program policy. The variations among services in adherence to the set standards enabled us to assess their specific importance for the daily experiences of children in this program.

Programs' Participants - Although the program is available to children age 3-36 months, the means and distribution of children's age and age-of-entry suggest that many mothers prefer to prolong their stay at home beyond their maternity leave of three months. It was also found that some services were permitted to accept children older than 36 months.

Mothers as a group were not very young. As might be expected, the more educated mothers were older ($r = -.35$, $p < .002$). Families using this service varied greatly in their SES, as suggested by the distribution of parents' education. Data not included in Table 1 show that 52% of the mothers held either academic or professional jobs, 39% were non-professional workers and only 9% did not work. The latter group were generally referred and fully subsidised by the local welfare department. These statistics indicate that the program does indeed serve the population it was intended for.

Insert Table 1 about here

Program operators - Most were generally mature women, but without much experience or pre-service training in providing care for a group of children other than their own. The mean education level, as well as the mean frequency of in-service training and individual supervision, were in accordance with the set standards of the program. All coordinators (N=10) had more than a high school education. Four were social workers with no experience or special training in early childhood education, who were assigned this position by the local welfare department that employed them. The others were trained in early childhood education with experience ranging from 1-16 years. Only three coordinators were actually trained as trainers. These small numbers did not permit any statistical comparison of their respective effectiveness as coordinators.

The caregiving environment - Group composition data indicate that most groups did not exceed the size set by the standards. Groups varied greatly in their age-mean and age-mix, revealing some ambiguity about the meaning of the standards set by the program. Similarly, although the program required that groups should be of mixed SES background, the variation in mean levels of parents' education and the percent of children from "problem families" suggest some difficulty in adherence to this standard. The ratings of the physical setting suggest that most services provided sufficient space, play materials and physical conditions to meet the set standards. Yet, over 20% were rated as not having adequate space, 10% lacked sufficient play

materials, and over 25% were lacking in some aspect of physical care conditions.

The educational program in the FDC homes was found to vary greatly. Twenty-six percent of the daily program time was dedicated, on average, to some educational activity (such as playing with puzzles, Lego, painting, listening to a story, music or watching an educational program on TV). While children in 25% of the FDC homes spent about half of their time in such activity, children in other homes (17%) had no opportunity for such activities at all.

The Effects of Specific Policy Related Standards on the Daily Experiences of Children in FDC

The effects of standards on the Quality of Interaction and Environment - Quality of care is estimated in this study by two major composite measures: Quality of Interaction and Quality of Environment. The correlation between them is modest (Pearson $r = -.32$).

Two groups of policy related standards were examined separately. First, the effects of the selection criteria and conditions of training and supervision on the caregiver's interaction with the children and the quality of the environment provided were investigated (Table 2). The second group of standards investigated were those that determined the group composition (Table 3).

Insert Table 2 about here

A hierarchical regression model was used in which caregivers' age and experience were entered in the first equation followed by caregivers' education. Training (pre- and in-service) and individual supervision were entered in the third and fourth equations. The model was computed separately for Quality of Interaction and for the overall Quality of Environment.

Table 2 presents the change in R square at each step of the regression analysis. Quality of Interaction is determined mostly by the individual supervision the caregiver receives ($Beta = .63$, $p < .001$), and to a lesser degree by training ($Beta = .25$, NS). Education level, experience and age contributed relatively little to the quality of caregiver interaction with children. A one-way ANOVA, which compared the effects of four levels of supervision, demonstrates that caregivers who were supervised at least once-a-week, in comparison with those who were supervised twice- or once-a-month, provided significantly better Quality of Interaction ($F = 11.61$, $p < .001$; Scheffe procedure, $p < .05$). They spent less time alone or in preparations and more time with the children in a developmentally facilitating interaction.

The regression analysis done on Quality of Environment reveals a very similar picture: Caregivers who receive more intensive individual supervision offer a better quality environment ($Beta = .46$, $p < .01$). They provide better physical care conditions, more varied toys, a better organized and less crowded space, as well as a planned daily program with a

higher proportion of educational activities, and a generally more relaxed and pleasant atmosphere. Independent of the effect of supervision, caregivers with a higher level of education also offer a better environment (Beta=.46, $p<.01$). Thus, although some aspects of the caregiving environment are effected directly by the policy standards for the physical environment, individual differences among caregivers, in their level of education and the supervision they receive, affect the observed variance in the quality of the environment.

A second set of regression analyses was then conducted to evaluate the relative effects of age and SES group composition on the quality of caregivers' interaction, as well as the quality of the environment, while controlling for the effect of individual supervision on these variables.

Insert Table 3 about here

As Table 3 shows, individual supervision was entered in the first equation, followed by mean level of parents' education in the second equation and percent of "problem families" in the third. The mean age of children in the group was entered last. A high percentage of children from "problem" families has a detrimental effect on the Quality of Interaction (Beta = -.38, $p<.06$), but no effect on the Quality of Environment. The mean age of children in the group has a positive effect on the Quality of Environment (Beta= .54, $p<.01$), but no effect on the Quality of Interaction. As might be expected, age mix had a curvilinear, rather than linear, effect

on caregiver's behaviour, i.e. both a very heterogeneous as well as a homogeneous group have a detrimental effect on the Quality of Interaction. A one-way ANOVA with four levels of age-mix confirms this expectation ($F=7.05$, $p<.001$). The Scheffe procedure reveals that the best Quality of Interaction is displayed in groups where the difference between youngest and oldest child is 13-24 months ($p<.05$). The worst Quality of Interaction is found in groups where the difference is smaller than six months or greater than 25 months.

The direct and indirect effects of standards on the behaviour of children - Two sets of regression analyses were conducted to examine the effects of standards on the behavior of children. The first investigated the contribution of the Quality of Interaction and the Quality of Environment while controlling for the children's age and the educational level of their parents (Table 4). A preliminary analysis, which examined the relative contribution of other background variables such as child's sex and age-of-entry into day care, showed no significant effects from these factors. The second set investigated the effects of group composition on the behavior of children (Table 5). The same hierarchical regression model was used separately for the different measures of children's behaviour, in order to determine the effects of specific predictors on specific behaviors.

Insert Table 4 about here

Table 4 reveals that, in general, both Quality of Interaction and Quality of Environment contribute to the variance in children's behaviour beyond the effects of their age and their parents' education. The Beta coefficients of the final equation reveal that, as expected, older children behave more competently (e.g. "competence": Beta=.42, $p<.001$). Contrary to expectation, children of parents with a higher level of education did not show more frequent "competent behaviour", but instead engaged more frequently in "aimless behaviour" (Beta=.38, $p<.001$). (The Beta of "play near another child" is not significant). Like older children, they engaged less frequently in "gross motor activity" (Beta=-.38, $p<.001$).

Above and beyond these effects, as was expected, children in FDC homes offering better Quality of Interaction behaved more competently, engaged less frequently in "aimless behavior" and spent less time alone or playing near another child. They spent more time in group activity. All the Beta coefficients were statistically significant.

Children in FDC homes offering better Quality of Environment spent more time in "concept and skill acquisition behaviour" (Beta= .53, $p<.001$) and less in "gross motor activity" (Beta= -.30, $p<.01$). They also spent less time in "group activity" (Beta = -.41, $p<.001$) and more time "alone" (Beta= .39, $p<.01$) or "playing near another child" (Beta= .38, $p<.01$). Quality of Interaction had no effect on concept and skill acquisition behavior or on gross motor activity. It is interesting to note that Quality of Environment has an opposite effect of that of Quality of Interaction on the social context of the child's behavior.

Insert Table 5 about here

The final set of regression analyses examined the effects of group composition on the behavior of children. For the purpose of this analysis group means were calculated excluding the target child. Even so, it was observed that children tended to be in groups with other children of similar background. Thus, the target child's age was correlated with the mean age of the group ($r=.47$, $p<.001$), and the education level of the child's parents correlated with the mean educational level of parents in the group ($r=.54$, $p<.001$). Therefore, in order to assess the unique contribution of the group composition, the child and family characteristics were entered as a first step in the regression equation (Table 5). The analysis shows that in groups with higher mean level of parental education, children were found more frequently to engage in concept and skill acquisition activities (Beta=.49, $p<.007$) as well as playing near another child (Beta=.63, $p<.001$). In groups with a higher percentage of children from problem families, children tended to engage more frequently in gross motor activity and spend more time being "emotionally distressed" (Beta=.33, $p<.07$). It should be noted that "emotional distress" is not influenced by the child's personal or family background but rather by this aspect of group composition. Children in groups with higher mean age engaged less in gross motor activity (Beta= -.30, $p<.02$). The effects of age-mix were examined by a one way ANOVA in order to explore the possibility of a curvilinear relationship. The analysis reveals

that when the ages of children in the group varied greatly, spanning more than 25 months between the youngest and oldest child, children were only half as likely to play near each other (in pairs) than when the age span was less than 12 months ($F=3.17, p<.03$).

None of the predictors discussed above had any effect on negative social behaviors (i.e., struggling, attacking and non-compliance).

DISCUSSION

The goals of the Israeli 1977 Family Day Care social policy program were to provide adequate care and enrichment to infants and toddlers in a sponsored program of Family Day Care, so that their mothers could work outside the home or be free to deal with the social problems dominating their lives. The main developmental objective of the program was to reduce any negative consequences of out-of-home care by maintaining quality care. A quality care program was perceived by policy makers as "enrichment" for children of disadvantaged background. These objectives evolved into detailed guidelines and standards for the agencies that operate FDC services. Each service implemented these guidelines within the given limits of available resources and community demographics. The data shows that generally individual services did conform to the standards and criteria set by the social policy. Nevertheless, the variations among homes was such that it permitted an analysis of the effects of specific standards on the daily experiences of children.

This study shows that important aspects of children's daily experiences in FDC, which are determined by their interactions with the caregiver and the environment, are strongly influenced by factors such as the caregiver's individual supervision and education, and the group's composition. These factors are determined by the standards set by the social policy. The standards of experience in child care and training have less of an impact on the caregiver's interaction with the children and the

quality of the environment provided than does individual supervision. Caregivers who are supervised once a week spend more time with children in a developmentally facilitating interaction and provide a better, more relaxed and more educationally oriented environment. It is not clear from these results which factors of individual supervision produce these results, i.e., whether it is the specific interventions or guidance given by the supervisor, or the sheer support and attention of a professional. The data reveal that there were no other differences between homes with more and homes with less supervision, further clarifying this issue. Other studies have emphasized the effects of training in early childhood on the quality of the caregiver's interaction with children (e.g. Roupp & Travers, 1982). This study found that training indeed contributed to the quality of interaction. The weakness of the effect (Beta is not statistically significant) may reflect the relatively little variability in the amount of training these caregivers had. Most had the required minimal two months training.

The standards requiring heterogeneity of SES background in the group are not maintained in neighborhoods with predominantly distressed populations. Some of the FDC homes in these areas had a very high proportion of children from distressed families. In these groups the caregivers provide a lower quality of interaction. Since this group characteristic is not correlated with the caregiver's own SES background, it seems that the deterioration in the quality of interaction results from the strain this group composition puts on the caregiver, rather than from a demographic relationship.

The policy standards require that groups include children of different ages (all under the age of three), but do not specifying the range or proportion of age mix. Age mix is found to have a curvilinear effect on the quality of interaction. Caregivers with extremely homogeneous or heterogeneous groups provide poorer quality of interaction. The best quality of interaction is provided in groups where the age difference between the youngest and oldest child is not less than a year and not more than two years. This finding is not unlike the one reported by Stalling & Porter (1980) for toddlers in their study.

In contrast to the quality of interaction, the quality of the environment offered by the caregiver is not influenced by these aspects of group composition. A better quality environment is offered by more educated caregivers who provide care for older children. The data highlights the fact that different components of what is generally described as "Quality of Care" may be affected differently by standards set by social policy for FDC.

The behavior of children in child care is influenced both by their personal background and by the standards that determine the quality of care. As might be expected, older children behave more competently. Our data suggests however, that children of more educated parents did not find the FDC environment stimulating enough. They spent more time in aimless behaviour and playing with another child, and less in gross motor activity. This finding on the effects of parental education confirms the need for further study of the interface between family factors and the effects of

group care (Howes, 1986). The main implication is that caution should be exercised in generalizing conclusions about the effects of policy and standards designed to maintain quality care on different subclasses of children. For example, standards that specify a given program may lead to a stimulating and enriching child-environment-interaction for one group of children and be under- or over-stimulating for another.

Like other studies in the field of child care (McCartney, 1984; Phillips, McCartney & Scarr, 1987; Howes, 1986), this study found that aspects of "quality of care" effect the child's behaviour above and beyond the effects of age, sex, age of entry and family background. As quality of interaction and quality of environment improve, the frequency of aimless behaviour is reduced. However, beyond this general effect, these two aspects of "quality care" have very different effects on children's behaviour. This finding supports the "environmental specificity hypothesis" that questions the "global model" which dichotomies the environment into a good-bad dimension (Hunt, 1977), and instead suggests that different aspects of the environment have a different influence on specific elements of development (Hunt, 1979; Wachs & Gruen, 1982; Wachs & Chan, 1986). This study shows that quality interaction brings the child into closer contact with the caregiver, resulting in the child being less alone and behaving more competently (using language, playing on a higher level with children and toys, and displaying more frequent positive social behaviors towards other children). Quality environment, on the other hand, presents a more complex picture. A better environment provides the child with more frequent

opportunities for activities which facilitate the acquisition of concepts and fine motor coordination, and decreases the frequency of gross-motor activity. In such an environment, however, the child spends more time alone or playing near another child than in a group activity. This may suggest that the caregiver who provides quality interaction (as defined by this study) saw her main educational role as encouraging group activity and enabling and facilitating expressions of competent behaviors, but not necessarily as initiating activities leading to concept and skill acquisition. The caregiver who emphasizes the provision of quality environment on the other hand, seems to see her main educational role more as creating an environment that will facilitate the child's learning.

In addition to their effects on the quality of interaction with the caregiver, standards that determine group composition (SES and age) have a direct effect on children's behavior. Regardless of their own personal background, infants and toddlers who are in groups with a higher mean parental education engage more in concept and skill acquisition and play more frequently near their peers. By contrast, children in groups with a higher proportion of children from socially distressed families are more frequently emotionally distressed and display more gross motor activity. The effect of

age composition standards on the behavior of infants and toddlers is rather obvious. Children in groups with higher mean age were less likely to engage in gross motor activity, an effect which is possibly mediated by the quality

of environment in these groups. Infants and toddlers in groups with large age heterogeneity are less likely to play along side each other.

Social policy has thus been demonstrated to have an effect on the daily experiences of children in one of the most common forms of day care for infants and toddlers. Even in such a home-like environment, variations in quality of interaction and quality of environment, as well as the behavior of children, were shown to be influenced by policy decisions. The analysis of the way specific standards influence specific aspects of the child's environment, and directly or indirectly effect behavior, enriches our understanding of some of the processes involved in child-environment interaction (Rosenthal, 1973). It specifically contributes to our general knowledge and theoretical understanding of the effects of group rearing on the behaviour of very young children, as well as on the more practical deliberations of priorities in budgeting when setting standards for child care for this age group.

Implications for policy decisions

While research on FDC in the US and Great Britain generally emphasizes the relative poor quality of care offered in this setting (Clarke-Stewart & Fein, 1983; Howes, 1986; Moss, 1987), the present research suggests that under given circumstances FDC can become a quality care program.

The implications of this study for policy decisions are as follows:

(a) A social policy that allocates similar subsidies to families using day care centers and sponsored Family Day Care encourages caregivers to join

the sponsored FDC system. The subsidy policy can be designed so that the system attracts a socioeconomic heterogeneous population.

(b) Attention should be given by policy makers to standards that maintain both quality of interaction with the caregiver and quality of the environment. This means that in addition to adhering to the requirement of weekly individual supervision, sponsors should require set standards of education level and training for caregivers. The provision of individual supervision should be the major responsibility of the coordinator of each service. This implies appropriate training of coordinators, as well as the job definition of educator rather than administrator. The number of homes to be supervised by each coordinator should be limited to allow weekly meetings. Sponsors would be advised, in addition, not to include more than one child from a distressed family in any one FDC home. When this is not feasible, special support should be given to the caregivers of these groups. Special attention must be given to the quality of the environment in groups with younger toddlers and infants, since it seems to be easier for caregivers to comply with standards geared for older toddlers.

(c) Groups that serve children primarily under the age of three should avoid extreme age heterogeneity and homogeneity. A span of 1-2 years between youngest and oldest child is recommended.

(d) Special guidance must be given to caregivers (most of whom have less than a highschool education) on how to provide a sufficiently stimulating program in their home for children of parents of higher education levels.

The strategy utilized by the present study has produced recommendations that are anchored very solidly in data relevant to the a "real-world" community program (Clarke-Stewart & Fein, 1983) . It informs the policy maker about the implementation of standards and guidelines, derived from social policy, and the effects of that policy on the daily experiences of children in the specific program, rather than extrapolating policy recommendations from an experimental model program.

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Table 1. Characteristics of the FDC system

<u>Variable</u>	<u>Mean</u>	<u>S.D</u>	<u>Range</u>
<u>Program participants</u>			
Children's age (months)	23.65	4.81	14-39
Age of Entry (months)	13.04	6.12	3-30
Mothers' age (years)	28.27	4.50	20-40
Mothers' working hours/day	6.32	1.64	4-9
Parents' education (years)	13.18	3.25	5-20
<u>Program operators (caregivers)</u>			
Age (years)	35.10	7.23	25-56
Experience (years)	2.66	1.63	1-7
Education (years)	10.41	1.91	6-16
Pre-service training (months)	2.12	.97	1-4.5
In-service training (*)	1.92	.67	1-3
Individual supervision (**)	2.38	.81	1-4
<u>The caregiving environment</u>			
<u>Group composition</u>			
Group size	5.17	.83	3-7
Mean age	25.57	5.42	13-36.5
Age mix (S.D.)	5.52	3.54	.43-14.31
Percent "problem families"	21	27	0-100
Mean parent education	12.37	2.61	8.2-17.8
<u>Quality of the Environment (scales)</u>			
Space (1-3;1-min)	2.03	.54	1-2.67
Play material (1-3;1-min)	2.15	.31	1.44-2.89
Physical care (1-2;1-poor)	1.49	.21	1-1.80
Organization (1-3;1-poor)	2.60	.49	1-3
Atmosphere(1-Tense;3-Relaxed)	2.47	.49	1.5-3

Table 2. Hierarchical regression of Quality of Interaction and Quality of Environment on caregiver's background, training and supervision (N=41)

<u>Change in R square</u>					
	Background: Experience & Age	Background: Education	Training Pre- & in- service	Individual supervision	Total R- square
Quality of Interaction	.00	.01	.23**	.29***	.53***
Quality of Environment	.06	.10*	.04	.15**	.35***
* p<.05 ** p<.01 *** p<.001					

Table 3. Hierarchical regression of Quality of Interaction and Quality of Environment on individual supervision and Group composition (N=41)

	<u>Change in R square</u>				
	Individual supervi- sion	Mean parental education	Percent "problem families"	Mean age	Total R- square
Quality of Interaction	.39***	.00	.10*	.00	.49***
Quality of environment	.09*	.02	.00	.25***	.36***

* $p < .05$

** $p < .01$

*** $p < .001$

Table 4. Hierarchical regression of children's behavior on their Parent's education, their Age, Quality of Environment and Quality of Interaction (N=82)

	<u>Change in R square</u>				
	Parents' Education	Child's Age	Quality of Environment	Quality of Interaction	Total R-square
<u>Children's behavior</u>					
Competent	.00	.12**	.00	.10**	.23***
Aimless	.14***	.03	.06*	.04*	.27***
Gross Motor	.18***	.07**	.05*	.01	.33***
Concept & Skill acq.	.02	.03	.25***	.00	.30***
Emotional Distress	.00	.06*	.00	.00	.06
<u>Context of behavior</u>					
Child is alone	.00	.04	.05*	.12***	.22***
Plays near a child	.06*	.01	.05*	.11**	.23***
Child is in a group	.00	.02	.08*	.07*	.17**
* p<.05 ** p<.01 *** p<.001					